

We Claim:

1. An antenna system comprising:

at least one antenna element for sending and receiving a wireless signal;

at least one conductive member, having an edge displaced from and substantially directed toward the at least one antenna element, and cooperating therewith to establish a hemispherical beam pattern.
2. The antenna system of claim 1 wherein the at least one antenna element comprises a pair of antenna elements, disposed respectively at opposite ends of the at least one conductive member, and cooperating therewith to establish a respective pair of hemispherical beam patterns.
3. The antenna system of claim 1 wherein the at least one antenna element comprises a plurality of antenna elements, disposed respectively along the periphery of the at least one conductive member, and cooperating therewith to establish a respective plurality of hemispherical beam patterns.
4. The antenna system of claim 3 wherein a first portion of antenna elements are adapted to operate over a first wireless frequency band, and wherein a second portion of antenna elements are adapted to operate over a second wireless frequency band.

5. The antenna system of claim 4 wherein the first and second wireless frequency bands are 2.4 GHz and 5 GHz wireless bands.

6. The antenna system of claim 1 wherein the at least one conductive member comprises a plurality of non-intersecting conductive members wherein each conductive member is associated with at least one antenna element.

7. The antenna system of claim 6 wherein the plurality of conductive members comprise first and second conductive members, located at a substantially perpendicular angle.

8. The antenna system of claim 7 wherein each conductive member is associated with a pair of antenna elements, disposed at respective opposite ends of the respective conductive member.

9. The antenna system of claim 8 wherein the pair of antenna elements associated with the first conductive member are adapted to operate in a first wireless frequency band and the pair of antenna elements associated with the second conductive member are adapted to operate in a second wireless frequency band.

10. The antenna system of claim 9 wherein the first and second wireless frequency bands are 2.4 GHz and 5 GHz wireless bands.

11. The antenna system of claim 1 wherein the at least one conductive member comprises a single planar element, substantially coplanar with the at least one antenna element.

12. The antenna system of claim 1 wherein the at least one conductive member comprises a plurality of planar elements, substantially coplanar with the at least one antenna element.

13. The antenna system of claim 1 wherein the at least one conductive member comprises a substantially angled member.

14. The antenna system of claim 13 wherein the substantially contoured member is an angled member having a vertex edge substantially directed toward the at least one antenna element.

15. The antenna system of claim 1 further comprising a sandwich module for providing a further level of antenna isolation.
16. The antenna system of claim 15 wherein the sandwich module comprises metal plates that substantially face the at least one conductive member at a perpendicular angle.
17. The antenna system of claim 15 where the sandwich module comprises a separation material having RF isolating properties, for providing a further level of antenna isolation.
18. The antenna system of claim 1 wherein the at least one antenna element is a dipole antenna and the at least one conductive member is at least one discrete component.
19. The antenna system of claim 1 wherein the at least one antenna element and at least one conductive member are formed on a single piece of circuit board material.
20. The antenna system of claim 1 wherein the antenna element is shorter than the respective edge of the conductive member.
21. A wireless device comprising:

a radio transceiver comprising a plurality of radio components for processing a wireless signal;

at least one antenna element for sending and receiving a wireless signal;

at least one conductive member, having an edge displaced from and substantially directed toward the at least one antenna element, and cooperating therewith to establish a hemispherical beam pattern for the wireless signal.

22. The wireless device of claim 21 wherein the at least one antenna element comprises a pair of antenna elements, disposed respectively at opposite ends of the at least one conductive member, and cooperating therewith to establish a respective pair of hemispherical beam patterns.

23. The wireless device of claim 21 wherein the at least one antenna element comprises a plurality of antenna elements, disposed respectively along the periphery of the at least one conductive member, and cooperating therewith to establish a respective plurality of hemispherical beam patterns.

24. The wireless device of claim 21 wherein a first portion of antenna elements are adapted to operate over a first wireless frequency band, and wherein a second portion of antenna elements are adapted to operate over a second wireless frequency band.

25. The wireless device of claim 24 wherein the first and second wireless frequency bands are 2.4 GHz and 5 GHz wireless bands.

26. The wireless device of claim 21 wherein the at least one conductive member comprises a plurality of non-intersecting conductive members wherein each conductive member is associated with at least one antenna element.

27. The wireless device of claim 26 wherein the plurality of conductive members comprise first and second conductive members, located at a substantially perpendicular angle.

28. The wireless device of claim 27 wherein each conductive member is associated with a pair of antenna elements, disposed at respective opposite ends of the respective conductive member.

29. The wireless device of claim 28 wherein the pair antenna elements associated with the first conductive member are adapted to operate on a first wireless frequency band and the pair of antenna elements associated with the second conductive member are adapted to operate on a second wireless frequency band.

30. The wireless device of claim 29 wherein the first and second wireless frequency bands are 2.4 GHz and 5 GHz wireless bands.

31. The wireless device of claim 21 wherein the at least one conductive member comprises a single planar element, substantially coplanar with the at least one antenna element.

32. The wireless device of claim 21 wherein the at least one conductive member comprises a plurality of planar elements, substantially coplanar with the at least one antenna element.

33. The wireless device of claim 21 wherein the at least one conductive member comprises a substantially angled member.

34. The wireless device of claim 33 wherein the substantially contoured member is an angled member having a vertex edge substantially directed toward the at least one antenna element.

33. The wireless device of claim 21 further comprising a sandwich module for providing a further level of antenna isolation.

34. The wireless device of claim 33 wherein the sandwich module comprises metal plates that substantially face the at least one conductive member at a perpendicular angle.

35. The wireless device of claim 33 where the sandwich module comprises a separation material having RF isolating properties, for providing a further level of antenna isolation.

36. The wireless device of claim 21 wherein the at least one antenna element is a dipole antenna and the at least one conductive member is at least one discrete component.

37. The wireless device of claim 21 wherein the at least one antenna element and the at least one conductive member are formed on a single piece of circuit board material.

38. The wireless device of claim 21 wherein the antenna element is shorter than the respective edge of the conductive member.